

CLAIMS

What is claimed is:

1. An optical device for a plane image input device, characterized in that: the optical device is associated with an illuminating source of the plane image input device and the
5 optical device comprises a body which includes an incident end and an emergent end, wherein a light beam emitted by the illuminating source enters the body via the incident end, undergoes a total reflection, and emerges from the emergent end.
2. The optical device of claim 1, wherein the body includes the incident end, the emergent end, a first reflector, a second reflector, a third reflector, a fourth reflector, a first
10 junction surface, and a second junction surface, the first reflector connecting to the incident end and to the first junction surface connected with the emergent end at an angle of 135 degrees, the second reflector connecting to the emergent end and to the third reflector at an angle of 90 degrees, the second junction surface connecting to the third reflector and to the fourth reflector at an angle of 135 degrees, and the fourth reflector connecting to the
15 incident end.
3. The optical device of claim 2, wherein the incident end is planar.
4. The optical device of claim 2, wherein the incident end is convex.
5. The optical device of claim 2, wherein the emergent end is planar.
6. The optical device of claim 2, wherein the emergent end is convex.
- 20 7. The optical device of claim 2, wherein the body comprises a first device and a second device, the first device includes the incident end, the fourth reflector, the second junction surface, the third reflector, and a first touching surface, with the first touching surface connecting to the incident end and the third reflector, and the second device includes the first reflector, the first junction surface, the incident end, the second reflector,

and a second touching surface, with the second touching surface connecting to the first reflector and the second reflector, the first touching surface of the first device touching against the second touching surface of the second device.

8. The optical device of claim 7, wherein the first touching surface has a plurality of
5 convex surfaces corresponding to the second touching surface which is flat.

9. The optical device of claim 7, wherein the second touching surface has a plurality of convex surfaces corresponding to the first touching surface which is flat.